Aero Design Ltd.

Work Order Control Sheet

Work Order#: 2017-83 **Date Opened:** 08 May 2017 **Title:** Fabrication

Aircraft OEM: Eurocopter **Aircraft Model:** AS350/355 **Product Type:** Cargo Basket & Lid **Product Model:** XL **Quantity:** 5/5

Work Order Contents

	Initial or N/A
Work Order/Build Sheets (Procedures Provided)	JC
Additional Work Sheets (Standard Practice)	N/A
Drawings (See List Below)	JC
Parts Distribution Sheet	JC
Sub Component Tags	N/A
Completed Certification	JC
Time Sheet (R&D)	N/A
Notes	N/A

Build Sheet Contents

	Initial or N/A
Tasks Initialled	JC
Dual Inspections Initialled	JC

Drawing List

Drawing #	Rev #	Description	Initial or N/A
94011	1	Body	JC
94012	1	Lid	JC
70405	4	Lid Walkway	JC
84262	2	Basket Handle Prov.	JC
84263	0	Lid Handle Provisions	JC
94023	1	Attachment Hoop	JC
94030	1	Hoop	JC

Traveller

Initial or N/A

Component Completion

	As Instructed
Quantity Complete on This Work Order	4 / 4
Quantity Incomplete on This Work Order	N/A
Further Processing Required Before Release	N/A
Release to Stock as Components	N/A

Certification

	Initial or N/A
Form One Completed	N/A
Serviceable (Green) Tag Completed	N/A
In Process (Yellow) Tag Completed	JC
Unserviceable (Red) Tag Completed	N/A
Parts Tracking (White) Tag Completed	N/A
Parts Placed in Stores for Distribution	N/A

Additional Documentation

	Initial or N/A
Documentation of a minor change	N/A
Non-Conformance Report Required	N/A
Service Difficulty Report Required	N/A

Billing

	Initial or N/A
Local (Aero Design)	JC
Research and Development	N/A
Third Party	N/A

Work performed by:	Print: D. Hammer / J. Clarke	Sign:	SCA: AD02	Date: 28-Jun-17
ICC / Dual Inspection preformed by:	Print: J. Rekve	Sign:	SCA: AD01	Date: 29-Jun-17
Work Order closed by:	Print: J. Clarke	Sign:	SCA: AD02	Date: 22-Sep-17

Aero Design Ltd.
9888 A Malaspina Rd. Powell River, BC, V8A 0G3
Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: AS350XL Lid No. of pieces: 1
Manufacturer: Aero Design Ltd.
Part No.: 94012-01 Serial/Batch No.: NA
TTSN: NA TSO: NA Rem.: NA
Work Order No.: 2017-83-3
Remaining Tasks to be Performed: Steps 11 ✓ 12 ✓ 13. ✓

Signature: David Marty
Date: June 23/2017 Lic. No. / SCA AD-05

Form# 20.E.03 Rev. 1 24 April 2014

In Process

Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

In Process

Remarks

Aero Design Ltd.
9888 A Malaspina Rd. Powell River, BC, V8A 0G3
Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: AS350XL Lid No. of pieces: 1
Manufacturer: Aero Design Ltd.
Part No.: 94012-01 Serial/Batch No.: NA
TTSN: NA TSO: NA Rem.: NA
Work Order No.: 2017-83-4
Remaining Tasks to be Performed: Steps 11 ✓, 12 ✓
13 ✓

Signature: [signature]
Date: June 23/2017 ✓ Lic. No. / SCA AD-05

In Process

Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

In Process

Remarks

Aero Design Ltd.
9888 A Malaspina Rd. Powell River, BC, V8A 0G3
Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: AS350 Body R/H No. of pieces: 1
Manufacturer: Aero Design Ltd
Part No.: 94011-01 Serial/Batch No.: NA
TTSN: NA TSO: NA Rem.: NA
Work Order No.: 2017-83
Remaining Tasks to be Performed: See back side

Signature: David Jones
Date: June 28/2017 Lic. No. / SCA AD-05

In Process

Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

In Process

Remarks

Steps 10. ✓
11. ✓
12. ✓

POWDER COAT PO 17068

Aero Design Ltd.
9888 A Malaspina Rd. Powell River, BC, V8A 0G3
Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: AS350 R/H. Body No. of pieces: 1
Manufacturer: Aero Design Ltd.
Part No.: 94011-01 Serial/Batch No.: NA
TTSN: NA TSO: NA Rem.: NA
Work Order No.: 2017-83
Remaining Tasks to be Performed: See back side

Signature:
Date: June 28/2017 Lic. No. / SCA AD-05

Form# 20.E.03 Rev. 1 24 April 2014

In Process

Aero Design Ltd.
9888 A Malaspina Rd. Powell River, BC, V8A 0G3
Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca
AMF 73-04

In Process

Remarks

Steps 10. ✓
11. ✓
12. ✓

Powder Coat PO 17065

Aero Design Ltd.
9888 A Malaspina Rd. Powell River, BC, V8A 0G3
Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: AS350 XL Body No. of pieces: 1
Manufacturer: Aero Design Ltd.
Part No.: 94011-01 Serial/Batch No.: NA
TTSN: NA TSO: NA Rem.: NA
Work Order No.: 2017-83-1
Remaining Tasks to be Performed: Steps 10 ✓, 11 ✓
12 ✓
See Back side
Signature: Robert Marty
Date: June 23/2017 Lic. No. / SCA AD-05

In Process

Aero Design Ltd.
9888 A Malaspina Rd. Powell River, BC, V8A 0G3
Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

In Process

Remarks

Body is R/H with forward cut out.

Aero Design Ltd.
9888 A Malaspina Rd. Powell River, BC, V8A 0G3
Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: AS350 XL Body No. of pieces: 1

Manufacturer: Aero Design Ltd

Part No.: 94011-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-83-03

Remaining Tasks to be Performed: Steps 10 ✓, 11 ✓
12 ✓

Signature: David Martin

Date: June 23/2017 Lic. No. / SCA AD-05

In Process

Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Remarks

In Process

Aero Design Ltd.
9888 A Malaspina Rd. Powell River, BC, V8A 0G3
Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: A5350 XL Lid No. of pieces: 1
Manufacturer: Aero Design Ltd.
Part No.: 94012-01 Serial/Batch No.: NA
TTSN: NA TSO: NA Rem.: NA
Work Order No.: 2017-83-1
Remaining Tasks to be Performed: Steps 11, 12
13 ✓ ✓ ✓

Signature: David Brunt
Date: June 23/2017 Lic. No. / SCA AD-05

In Process

Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

In Process

Remarks

Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: AS350XL Lid No. of pieces: 1

Manufacturer: Aero Design Ltd.

Part No.: 94012-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-83-2

Remaining Tasks to be Performed: Steps 11 ✓, 12 ✓

13 ✓

Signature: David Beatty

Date: June 23/2017 Lic. No. / SCA AD-05

In Process

Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

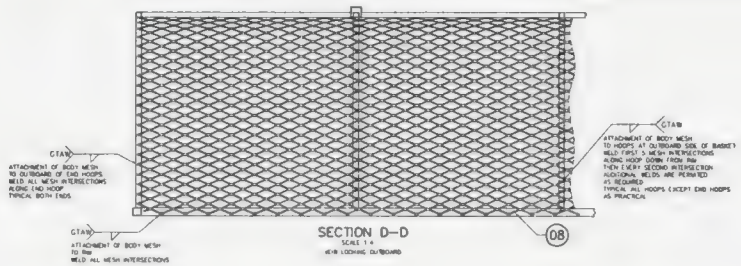
AMF 73-04

In Process

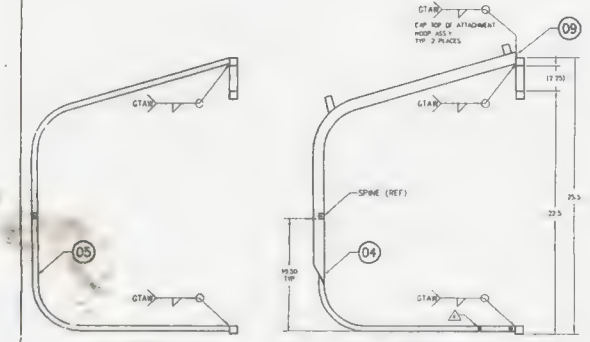
Remarks

2017-83 ~~5~~ X (4) DRM

REV	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		
1	TITLE BLOCK UPDATED. WELDING ROD UPDATED. REFERENCE DIMS ADDED. ITEM NUMBERS UPDATED. WELDS DOWN SIDES INCREASED	BJE	11/03/2014

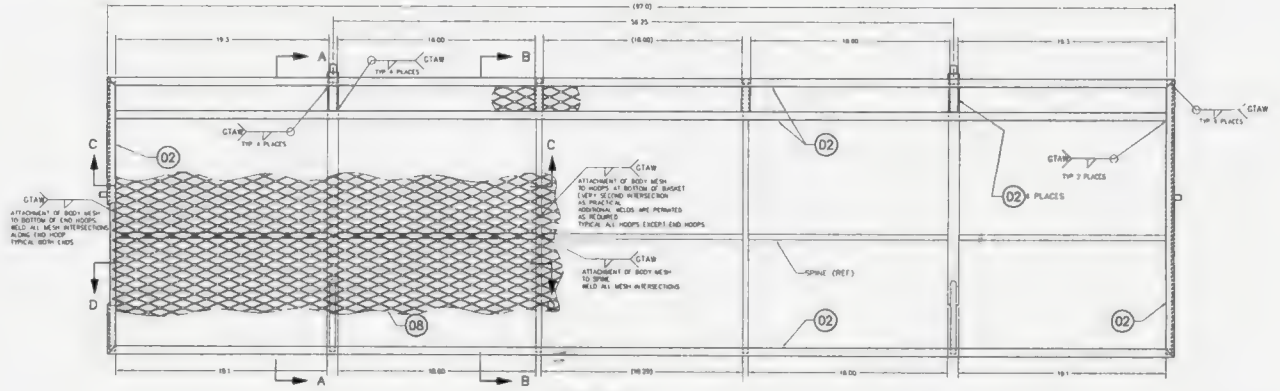


SECTION D–D
SCALE 1 : 4
MESH LOOKING OUTBOARD

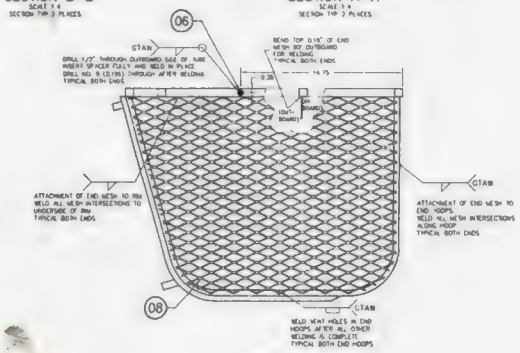


SECTION B–B
SCALE 1 : 4
SECTION TYP. 2 PLACES

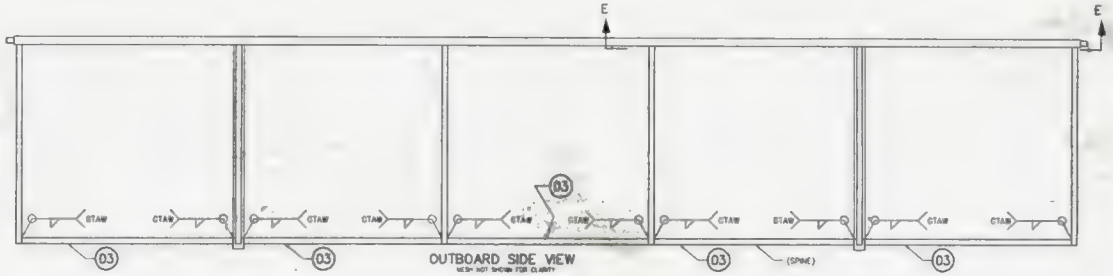
SECTION A–A
SCALE 1 : 4
SECTION TYP. 2 PLACES



TOP VIEW

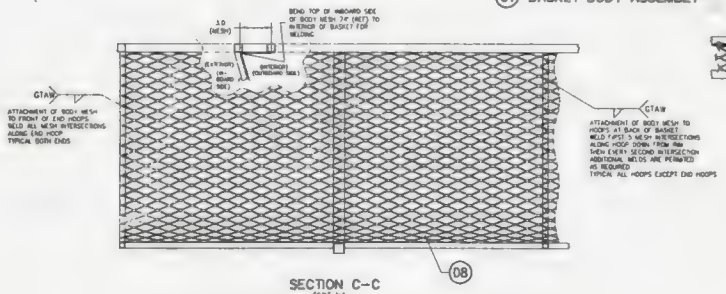


END VIEW
(HOOS OPOSITE)

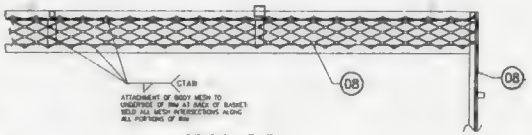


OUTBOARD SIDE VIEW
MESH NOT SHOWN FOR CLARITY

01 BASKET BODY ASSEMBLY



SECTION C–C
SCALE 1 : 4
MESH LOOKING INBOARD



SECTION E–E
SCALE 1 : 4

NOTES
1. REMOVE ALL BURRS AND BREAK SHARP EDGES
2. PRIOR TO WELDING, DRILL Ø30 (0.129) VENT HOLES IN ASSEMBLY FOR VENTING OF WELD GASES. WHEN ASSEMBLY IS COMPLETE, FILL ALL EXPOSED VENT HOLES WITH ROSELITE WELD
3. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2685C
   4130 AND 1018 STEEL WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT
   STAINLESS AND 4130 STEEL WELDING ROD SHALL CONFORM TO ER308L OR EQUIVALENT
4. ⚠ INSTALL ITEM 7 (BASKET HANDLE PROVISIONS ASSEMBLY) IN ACCORDANCE WITH AERO DESIGN LTD DRAWING 84362 BEFORE WELDING HOOPS TO RIM
5. FINISH THOROUGHLY CLEAN AND POWDER COAT BASKET ASSEMBLY

QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL/NOTE	MATERIAL SPEC	STOCK SIZE
2	- -	09	CAP	MILD STEEL	A(S) 1010/1020	0.050 SHEET
A/R	3/4 - 16F	08	MESH	MILD STEEL	COMMERCIAL	
1	84252-01	07	BASKET HANDLE PROVISIONS ASSEMBLY			
2	49215-01	06	SPACER			
4	84030-01	05	HOOP			
2	84023-01	04	ATTACHMENT HOOP			
A/R	- -	03	SQUARE TUBE	4130 STEEL COND. N	MIL-T-6736	1/2 X 0.035 SQR TUBE
A/R	- -	02	SQUARE TUBE	4130 STEEL COND. N	MIL-T-6736	3/4 X 0.035 SQR TUBE
01	84011-01	01	BASKET BODY ASSEMBLY			

LIST OF MATERIALS

APPROVALS	DATE
DRAWN: R. RATHWELL	DD. AUG. 11
CHECKED: E. BURGOIN	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ON:
DECIMALS: X.XXX ±0.010, X.XX ±0.03, X.X ±0.1
ANGLES: ±1/2°

AERO DESIGN LTD.

RR#84 MALASPINA ROAD
POWELL RIVER, BC, CANADA, V8A 0C3
TEL: 604 4851898 www.aerodesign.ca

EUROCOPTER AS350 & AS355 SERIES
QUICK RELEASE CARGO BASKET
BASKET BODY ASSEMBLY (EXTRA LARGE)

SCALE 1 : 4	DWG. SIZE A0	DWG. NO. 94011	REV. 1
SHEET 1 OF 1			

2017-83

CARGO BASKET BODY FABRICATION - COMMON

General

These instructions apply to all cargo basket body assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only
69811, Revision 3 – Standard Low Mounted Basket
94511, Revision 0 – Extra-Wide Low Mounted Basket
94611, Revision 0 – Extra-Wide Low Mounted Ski Basket
76611, Revision 0 – High Mounted Ski Basket
Options 70404, Revision 2 – Front end cutout – 698
70411, Revision 0 – Front end cutout – 945/946

Eurocopter AS350/AS355 – left or right
77611, Revision 1 – Short Basket
76411, Revision 3 – Medium Basket (left or right)
78411, Revision 2 – Long Basket
94011, Revision 0 – Extra Large (ski) Basket
Options 70406, Revision 2 – Front end cutout – 764/776/784/940

Robinson R44 – left or right
90611, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only
80211, Revision 0 – Short Basket
80311, Revision 0 – Medium Basket
81111, Revision 0 – Long Basket
Options 70406, Revision 2 – Front end cutout – 802/803/811

Bell 429 – right or left
95911, Revision 0 – Standard Basket

Bell Medium – left or right
75111, Revision 0 – Standard Basket
95511, Revision 0 – Extra Large (ski) Basket
Options 70407, Revision 1 – Front end cutout – 751
704 , Revision – Front end cutout – 955

MD600
82811, Revision 0 – Standard Basket

Options – Applicable to all models
70403, Revision 5 – Auxiliary Latch

CARGO BASKET BODY FABRICATION - COMMON W/C.O. W/C.O. **Complete**
(initial or SCA #)

Work Order: 2017-83 R/H R/H W/C.O.

Date Open: ~~June 2017~~ 08 May 2017

1. Rim Assembly – Basket Body — & DH & DH & DH DH ~~DH~~ N/A & /
   a. Cut and fit ¾" x 0.035 material to fit rim jig.
      i. 1 or 2 lid prop bushing holes in short tube – refer to drawing
   b. Record material PO on attached material list.
   c. Remove writing on tubes with acetone and scotch bright.
   d. For extra large baskets – drill #30 (0.129) vent holes to vent stringer tubes into rims.
   e. *94611 (206L/407 XL ski) only* – drill for 4 threaded bushings before assembling rim.

2. Weld Rim Assembly. — AO 73-04 05 | AO 73-04 05 | AO 73-04 05 | AO 73-04 05 | N/A
   a. Record welding rod PO on attached material list.
   b. *94611 (206L/407 XL ski) only* – weld 4 threaded bushings into inboard rim tube.

3. Inspection — AO 73-04 05 | AO 73-04 05 | AO 73-04 05 | AO 73-04 05 | N/A
   a. Rim for complete welds

4. Frame assembly – body — & DH & DH & DH DH N/A
   a. General
      i. Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing, hoops, etc.)
   b. Grind corner welds from step 2 on rim to allow hoops to sit flat.
   c. Pull required hoops from stock - standard, attachment, handle.
      i. If hoops are not in stock see detailed procedure sheet for specific hoop fabrication.
      ii. Ensure vent hole is located at centre of tube to vent spine tubes.
   d. Assemble hoops with attachment lug locating jig and hoop spacing jig.
      i. Ensure correct order and orientation of hoops. Refer to drawing.
         1. Attachment lugs are on inboard side.
         2. Handle bracket bushings are on outboard side, second hoop from both ends. May be on attachment hoops.
      ii. Run 3/8-24 tap into attachment lugs to ensure clear threads.
      iii. Bolt attachment lug locating jig to attachment hoops with 3/8-24 bolts.
      iv. Attach inboard and outboard hoop spacing jigs to all hoops using 1" C-clamps. Raise jigs approximately 2" off table to allow room to weld around hoops.
      v. Attach bottom (spine) jig to all hoops using 1" C-clamps along the centre line of the basket. Ensure jig is straight prior to tightening all clamps.
   e. Cut ½" x 0.035 material to fit spine jig.
   f. Cut ½" x 0.035 material for strut to fit from lower inboard attachment to upper outboard rim.
      i. Refer to applicable drawing for position, not required on some baskets.
   g. *Option*: Cut ½" x 0.035 material for front end cutout. Record material PO on attached material list.
   h. *90611 (R44) only*: Cut ½" x 0.035 material to fit front end structure. Record material PO on attached material list.
   i. Drill vent holes into attachment hoop and/or rim to vent strut(s) and front end cutout.

j. Record hoop WOs and material POs on attached material list.
k. Remove writing on tubes with acetone and scotch bright.
l. Insert rim assembly into jig and set frame assembly onto rim. Ensure correct orientation of lid prop bushings in rim to frame. Bushing hole must be closer to attachment side.
m. Align hoops to rim in accordance with drawing. General positions:
    i. Extra large baskets
        1. inboard side of hoops (attachment side) aligns to OUTSIDE of rim
        2. outboard side of hoops (handle side) aligns to INSIDE of rim
        3. forward and aft hoops align to INSIDE of rim
    ii. All other baskets
        1. inboard side of hoops (attachment side) aligns to INSIDE of rim
        2. outboard side of hoops (handle side) aligns to INSIDE of rim
        3. forward and aft hoops align to INSIDE of rim, except R44

AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | N/A

5. TIG weld frame to rim assembly.
    a. Ensure lug locating jig and hoop locating jigs are in place. Jigs must remain in place for as long as practical during welding.
    b. Strut tubes and front end cutout (see step 4.f. and g.) must be welded in place after the hoops are welded to the rim. Jig(s) must be in place prior to welding strut tubes.
    c. Robinson R44 (90611) requires fitting and welding of forward end after remainder of basket frame is welded. Use jig to support front hoop.
    d. Record welding rod PO on attached material list.

AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | N/A

6. Inspection
    a. Frame assembly for complete welds.

DA | DA | CA | | N/A

7. Mesh assembly.
    a. Pull sheet of expanded mesh from stock. Record material PO on attached material list.
    b. Cut mesh to size for body.
    c. Remove surface rust with scotch-brite.
    d. Bend body mesh – use table with bend markings on top. Lock wheels on table.
        i. For extra wide baskets only –
            1. Set ¾" angle along edge of table under mesh sheet. Set 1.5" square tube on top of mesh aligned with angle on edge of table. Clamp in place with 6" C-clamps.
            2. Bend upper edge of sheet just past a cell intersection to make a flange 2.5" - 3.25" wide. Closer to 2.5" is preferred, full cell intersection on flange side at bend is required.
            3. Bend down by hand as far as possible, then use a hammer to flatten the bend tight against the angle on the edge of the table.
        ii. Using markings on table, align sheet to indicated edge.
        iii. Using markings on table, align 3" tube to required position and clamp tube in place.
        iv. Bend mesh by hand tightly over tube along length of tube.
        v. Keeping mesh in place, un-clamp 3" tube, move to other position and clamp tube in place.
        vi. Bend mesh by hand tightly over tube along length of tube.
    e. Install attachment lug jig onto basket frame.

CR

f. Ensure end struts are welded in basket frame if required by the drawing.
g. Insert mesh into basket.
    i. General
        1. Some cells may interfere with correct positioning, especially at the upper corners and around struts. Bend cell(s) in as required, do not cut cells off.
        2. Ideally welds will be located on mesh intersections. Shift mesh if possible to minimize welds located off mesh intersections.
        3. Ensure mesh reaches all edges of basket BEFORE trimming. Regardless of progress in clamping, remove clamps and shift mesh if required.
        4. Ensure cleco clamps are placed from the inside of the basket to allow removal during welding. Cleco clamps may be used from the outside during fitting, but must be removed prior to welding.
    ii. Extra large baskets only – seat corner of mesh with flange into inboard upper corner of frame. Use C-clamps on edge of flange as required to maintain tight fit.
    iii. Starting at inboard top edge of basket, clamp mesh to hoop near top rim using cleco clamps onto hoops. For regular size baskets, edge of mesh should sit approximately half way up rim tube.
    iv. Working down the inboard side, clamp mesh to hoops with cleco clamps. Clamp down into radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, two clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
    v. Clamp mesh to spine in at least 1 place per section.
    vi. Working up the outboard side, clamp the mesh into the radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, 2 clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
    vii. Trim upper outboard edge of mesh if required, edge of mesh must be low enough on rim tube to prevent the weld from protruding above the edge of the rim. Some sheets are tapered and may require ½ to 1 cell to be removed over some or all of the length of the basket. De-burr cut edges with a sanding disc on a die-grinder. Straighten cut cells with duck-bill pliers. Clamp mesh near upper edge to hoops with cleco clamps after trimming.
    viii. Trim ends to land on hoops, at mesh intersections if possible.
h. Cut mesh to fit ends. Record material PO on attached material list.
    i. Remove surface rust with scotch-brite.
    ii. Ensure mesh is cut at intersections where possible.
    iii. Bend top edge of mesh 1/8"-3/16" down at 45 degrees
    iv. Cut for front end cutout if required.
i. 90611 (R44) only: Cut mesh to fit upper forward end. Record material PO on attached material list.
    i. Remove surface rust with scotch-brite.
    ii. Ensure mesh is cut at intersections where possible.
    iii. Bend top edge of mesh 1/4" down at 60 degrees.
    iv. Fit mesh to front end of basket.

CARGO BASKET BODY FABRICATION - COMMON

Complete (initial or SCA #)

8. Weld mesh to frame assembly per drawing. AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | N/A
   a. Ensure lug locating jig is in place prior to welding.
   b. General welding requirements for all baskets, MIG welding:
      i. Every intersection at top edges.
      ii. Every intersection at ends.
      iii. First 5 intersections down on hoops, then every second intersection.
      iv. Every intersection along spine.
      v. Extra large baskets – every intersection along corner.
      vi. Every intersection around ends
      vii. Every intersection along struts (if applicable)
   c. Bend and trim cells bent in to fit mesh as required and weld in position.
   d. Grind high spots off body mesh welds on ends before welding end mesh.
   e. *90611 (R44) only* – weld lid prop bushing (step 9) into rim BEFORE welding upper mesh on forward end of basket assembly.
   f. Record welding rod PO on attached material list.

9. Weld basket components AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | N/A
   a. TIG weld lid prop bushing(s), one or two per drawing.
      i. Record welding rod PO on attached material list.
      ii. Record lip prop bushing WO on attached material list.
   b. TIG weld caps to close top of 1" hoops as applicable.
   c. 94611 (Bell206L/407 XL ski) only: cut rim over cross tube gap.
      i. Cut inboard rim on aft end. Grind flush with hoops.
      ii. TIG weld caps on open tubes.
      iii. Record cap material PO on attached material list.
   d. 95911 (Bell 429) only: placard bracket to forward upper corner of basket.
      i. Record welding rod PO on attached material list.
      ii. Record placard bracket WO on attached material list.

10. Clean up & DH & DH & DH JC N/A
   a. Grind high spots off mesh welds.
   b. Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out. Do not tighten in corners of hoops, mesh will be deformed.
   c. Drill #9 through lid prop bushing(s). De-burr hole(s).
   d. Remove surface rust with scotch-brite pad.

11. Final Inspection AR AR AR JC N/A
   To be completed by a different person than the previous steps.
   a. Basket body assembly for complete welds, and required minimum mesh weld locations.
   b. Filled vent holes – usually on hoops
   c. Overall condition and conformity to drawing(s).
      i. Hoops for height.
      ii. Rim for width and length and alignment.
      iii. Lid prop lugs in correct ends.
      iv. Fore/aft strut in hoop if required by drawing.
   d. Material lists complete.

e. Tag complete basket body assembly in preparation for powder coating.

12. Powder Coating _____

a. Parts are to be powder coated white in accordance with commercial practices.
b. Record powder coating PO.
c. Inspect powder coating on receiving.
d. Tag basket body assembly and place into stock in preparation for assembly.

AO 73-04 02 | AO 73-04 02 | AO 73-04 02 | AO 73-04 02 | N/A

Work Order: 2017-83

Date Opened: June 2017

Material Tracking Sheet
Eurocopter AS350 / AS355
Extra Large Basket Body Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
		94011	**94011-01**	**Basket Assembly**		
Step 1				*Rim Assembly*		
	. 2		--	3/4" Tube - Long Rim (97")	4130 Steel, ¾" x 0.035 Sqr. Tube	17004
	. 2		--	3/4" Tube - Short Rim (25.5")	4130 Steel, ¾" x 0.035 Sqr. Tube	~~17004~~ 15072
	. 1		--	3/4" Tube - Long Stringer (95.5")	4130 Steel, ¾" x 0.035 Sqr. Tube	17004
	. 4		--	3/4" Tube - Short Stringer (2.25")	4130 Steel, ¾" x 0.035 Sqr. Tube	~~17004~~ 14009
Step 2				*Weld Rim Assembly*		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	14033
Step 3				*Inspection - Rim*	*None*	
Step 4				*Frame Assembly*		
	. 4		94030-01	Hoop - standard	4130 Steel, ½" x 0.035 Sqr. Tube	See other sheets
	. 2		94023-01	Hoop - attachment	#4 Frame 2017-133	See other sheets
	. 5		--	1/2" Tube - spine	4130 Steel, ½" x 0.035 Sqr. Tube	17038
Step 4.g.		70406	70406-01	*Option: Front End Cutout*		
			70406-03	1/2" Tube	4130 Steel, ½" x 0.035 Sqr. Tube	17038
			70406-04	1/2" Tube	4130 Steel, ½" x 0.035 Sqr. Tube	17038
Step 5				*Weld Frame Assembly*		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	14033
Step 6				*Inspection - Frame Assembly*	*None*	
Step 7				*Mesh Assembly*		
	. 1		--	Mesh (Body - 56" x 96")	3/4-16F Expanded Mild Steel sheet	16009
	. 2		--	Mesh (End - 25" x 18")	3/4-16F Expanded Mild Steel sheet	~~170~~ 16009 Den

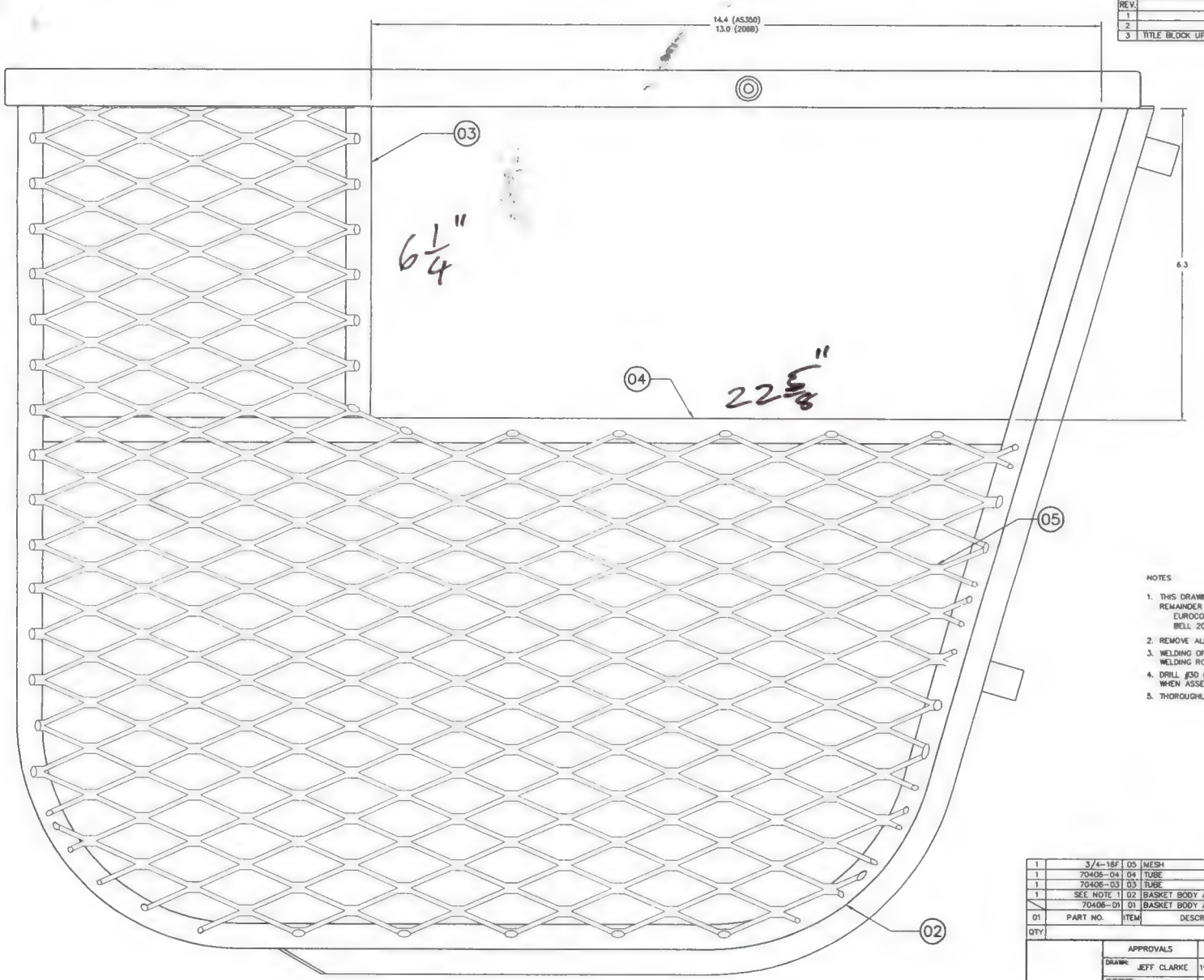
Work Order: 2017-83

Date Opened: June 2017

Material Tracking Sheet
Eurocopter AS350 / AS355
Extra Large Basket Body Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 8				*Weld Mesh*		
	. A/R		--	Welding Rod	ER70S-6 MIG Wire	16078
Step 9				*Weld Basket Components*		
	. 2		49215-01	Spacer (Lid prop)	304 Stainless Steel, ½" Dia.	2015-84
	. A/R		--	Welding Rod	ER308L TIG Rod	14028
Step 10				*Clean Up*	*None*	
Step 11				*Inspection - Final Assembly*	*None*	
Step 12				Powder Coating		17065 (1) / 17068 (2) / 17085 (1)

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
1	ADD BELL 206B	BJC	DEC 22/08
2	MODIFY OPENING	BJC	OCT 27/11
3	TITLE BLOCK UPDATED; LONG/EXTRA LARGE CONFIGURATION ADDED TO SHT. 2	BJC	14/07/2014



01 BASKET BODY ASSEMBLY

EUROCOPTER AS350 LONG SHOWN
EUROCOPTER AS350 EXTRA-LARGE SIMILAR

NOTES

1. THIS DRAWING IS AN OPTIONAL CONFIGURATION FOR THE FORWARD END ONLY. REMAINDER OF BASKET IS TO BE IN ACCORDANCE WITH THE FOLLOWING DRAWING:
   EUROCOPTER AS350/AS355: 78411 (LONG) OR 94011 (EXTRA LARGE)
   BELL 206B: 81111 (LONG)
2. REMOVE ALL BURRS AND BREAK SHARP EDGES
3. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2685C. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT
4. DRILL ⌀30 (0.129) HOLES TO VENT TUBES INTO BASKET HOOP AND/OR RIM. WHEN ASSEMBLY IS COMPLETE, FILL ALL EXPOSED VENT HOLES WITH ROSETTE WELD.
5. THOROUGHLY CLEAN AND POWDER COAT BASKET SUB-ASSEMBLIES PRIOR TO ASSEMBLY

QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
	LIST OF MATERIALS					
01			01 BASKET BODY ASSEMBLY - MODIFIED FORWARD END			
1	SEE NOTE 1	02	BASKET BODY ASSEMBLY			
1	70406-03	03	TUBE	4130 STEEL COND. N	MIL-T-6736	0.5 X 0.035 WALL TUBE
1	70406-04	04	TUBE	4130 STEEL COND. N	MIL-T-6736	0.5 X 0.035 WALL TUBE
1	3/4-16F	05	MESH	MILD STEEL	COMMERCIAL	

APPROVALS		DATE
DRAWN:	JEFF CLARKE	19 MAR 2008
CHECKED:	E. BURGOIN	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES ON:
DECIMALS: X.XXX ±0.010; X.XX ±0.03; X.X ±0.1
ANGLES: ±1/2°

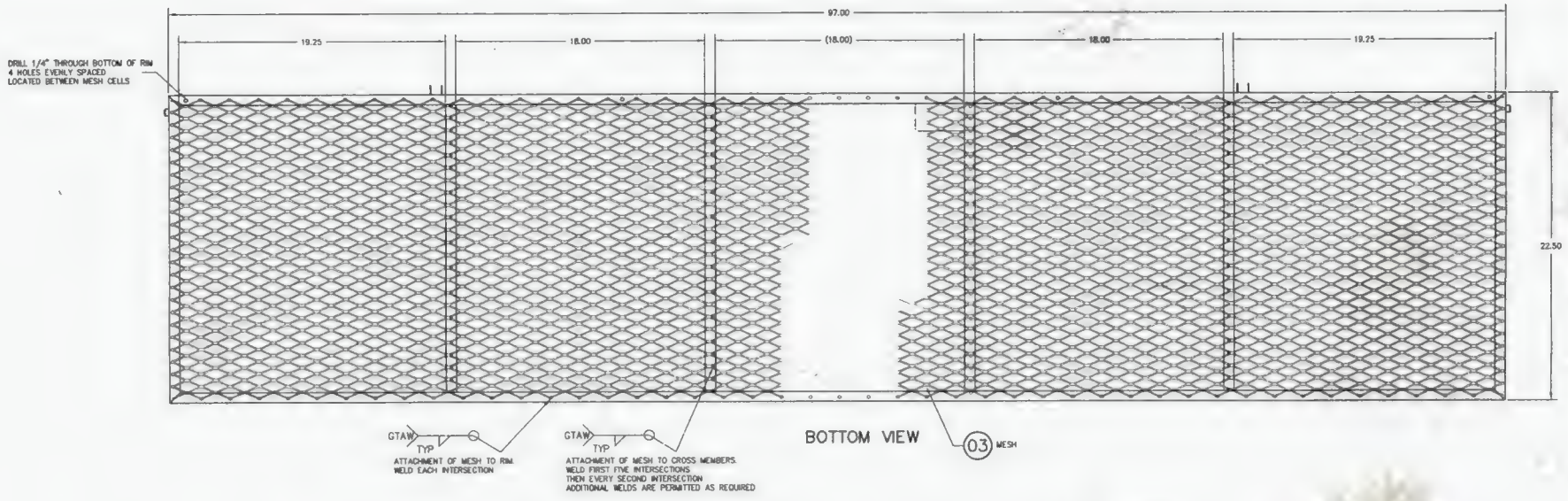
AERO DESIGN LTD.
9888A MALASPINA ROAD
POWELL RIVER, BC, CANADA, V8A 0G3
TEL: 604.483.8276 www.aerodesign.ca

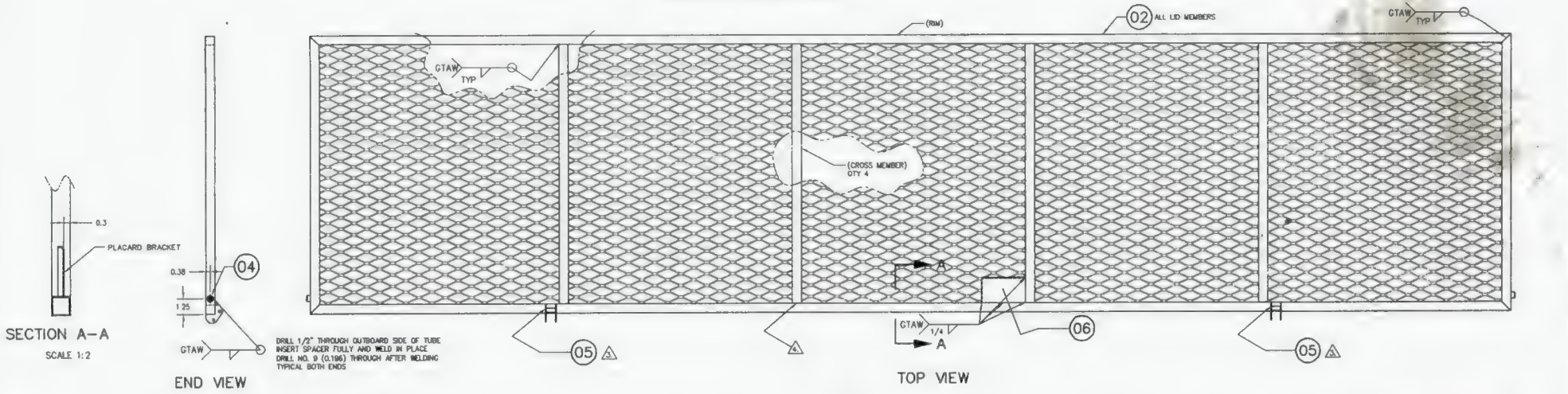
QUICK RELEASE CARGO BASKET
OPEN FORWARD END MODIFICATION

SCALE	DWG. SIZE	DWG. NO.	REV.
1 : 1	A1	70406	3
SHEET 2 OF 2			

2017-83 ~~x5~~ x4 gc.

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		
1	TITLE BLOCK UPDATED, CHANGED 36273-01 TO 84263-01, ITEM 6 'S ADDED	BJC	10/07/2014
	WELDING ROD UPDATED; # OF WELDS DOWN BRACE TUBES INCREASED		





NOTES:
1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2685C.
   4130 AND 1018 STEEL: WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.
   STAINLESS AND 4130 STEEL: WELDING ROD SHALL CONFORM TO ER308L OR EQUIVALENT
3. INSTALL ITEM 5 (LID HANDLE PROVISIONS ASSEMBLY) IN ACCORDANCE WITH AERO DESIGN LTD. DRAWING 84263.
4. DRILL #30 (0.128) HOLES IN LONG TUBE MEMBERS AT BRACE LOCATIONS TO VENT WELD GASSES. WHEN ASSEMBLY IS COMPLETE, FILL ALL EXPOSED VENT HOLES WITH ROSETTE WELD.
5. FINISH: THOROUGHLY CLEAN AND POWDER COAT LID ASSEMBLY.

QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
1	36204-10	06	PLACARD BRACKET			
1	84263-01	05	LID HANDLE PROVISIONS ASSEMBLY			
2	49215-01	04	SPACER			
A/R	3/4 - 16F	03	MESH	MILD STEEL	COMMERCIAL	
A/R		02	SQUARE TUBE	4130 STEEL COND. N	MIL-T-6736	0.75 X 0.035 SOR TUBE
1	94012-01	01	LID ASSEMBLY			

LIST OF MATERIALS

APPROVALS	DATE
DRAWN: R. RATHWELL	05 AUG 11
CHECKED: E. BURGOIN	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES ON:
DECIMALS: X.XXX ±0.010, X.XX ±0.03, X.X ±0.1
ANGLES: ±1/2°

AERO DESIGN LTD.
9688A MALASPINA ROAD
POWELL RIVER, BC, CANADA, V8A 0C3
TEL: 604.483.8378 www.aerodesign.ca

EUROCOPTER AS350 & AS355 SERIES
QUICK RELEASE CARGO BASKET
LID ASSEMBLY (EXTRA LARGE)

SCALE 1 : 4	DWG SIZE	DWG NO.	REV.
SHEET 1 OF 1	A1	94012	1

2017-83

CARGO BASKET LID FABRICATION - COMMON

General

These instructions apply to all cargo basket lid assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only
69812, Revision 3 – Standard Low Mounted Basket; Extra-Wide Low Mounted Basket
94612, Revision 0 – Extra-Wide Low Mounted Ski Basket
76612, Revision 0 – High Mounted Ski Basket

Eurocopter AS350/AS355 – left or right
77612, Revision 1 – Short Basket
69812, Revision 3 – Medium Basket (left and right)
78412, Revision 2 – Long Basket
94012, Revision 0 – Extra Large (ski) Basket

Robinson R44 – left or right
90612, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only
80212, Revision 0 – Short Basket
80312, Revision 0 – Medium Basket
81112, Revision 0 – Long Basket

Bell 429 – right or left
95912, Revision 0 – Standard Basket

Bell Medium – left or right
75112, Revision 0 – Standard Basket
95512, Revision 0 – Extra Large (ski) Basket

MD600
82812, Revision 0 – Standard Basket

Options
70405, Revision 3 – Walkway
70402, Revision 1 – Lid Door

CARGO BASKET LID FABRICATION

Complete
(initial or SCA #)

Work Order: 2017-83

Date Open: ~~June 2017~~ 08 MAY 2017

1. Rim Assembly – Basket Lid
   a. Cut and fit ¾" x 0.035 material to fit rim jig, 45 degree ends.
      i. 1 or 2 lid prop bushing holes in short tube – refer to drawing
   b. Record material PO on attached material list.
   c. Remove writing on tubes with acetone and scotch bright.

   DC DM DC DM DC DM DC DM ~~DM~~ N/A ✓

2. Weld Rim Assembly
   a. Record welding rod PO on attached material list.

   AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | N/A

3. Inspection
   a. Rim for complete welds

   AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | N/A

4. Frame assembly – Lid
   a. General
      i. Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing)
   b. Insert rim from step 2 into jig.
   c. Cut and fit ¾" x 0.035 material, 21" long, for lid cross members.
   d. Record material PO on attached material list.
   e. Remove writing on tubes with acetone and scotch bright.
   f. Drill vent holes into rim to vent cross members into rim.
   g. Locate cross members in lid rim. Refer to drawing for spacing of cross members. Clamp cross members with C-clamps to jig.

   DC DM DC DM DC DM DC DM ~~DM~~ N/A | N/A

5. Frame assembly – Lid with optional walkway modification

   AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | N/A

   a. Fit cross members to rim in accordance with step 4.
   b. Attach walkway jig with C-clamps. Ensure correct orientation of rim, refer to drawing.
   c. Cut ½" x 0.035 material for walkway stringers to fit between lid cross members. Record material PO on attached material list.
   d. Drill vent holes into cross members at walkway stingers.
   e. Align walkway stringers on walkway jig using cleco clamps near both ends of each stringer, and clamp stringer to jig using a C-clamp in the centre.

6. Weld frame assembly.

   AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | N/A

   a. Record welding rod PO on attached material list.
   b. Jigs must remain in place for as long as practical during welding.

7. Inspection

   AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | N/A

   a. Frame assembly for complete welds.

CARGO BASKET LID FABRICATION

Complete (initial or SCA #)

8. Mesh assembly. DH DH DH DH N/A
   Note: 95912 (Bell 429) does not have mesh. Skip to step 10.
   a. Pull sheet of expanded mesh from stock. Record material PO on attached material list.
   b. Cut mesh to size for lid.
   c. Remove surface rust with scotch-brite.
   d. Ensure lid is prepared for mesh on the correct side. AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | N/A

9. Weld mesh to frame assembly per drawing.
   a. General welding requirements for all lids:
      i. Every intersection on all edges.
      ii. First 5 intersections along cross members, then every second intersection.
   b. MIG weld both short sides.
   c. Clamp lid over spacer at centre of lid to pre-tension mesh.
      i. ¾" for lids under 76"
      ii. 1" (check) for lids over 76"
   d. Weld remainder of mesh as indicated in a.
   e. Record welding rod PO on attached material list. AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | N/A

10. Weld lid components.
    a. Handle brackets, locate in accordance with drawing.
       i. Standard location: ¼" outside of last cross member on both ends.
       ii. Record handle bracket WO and welding rod PO on attached material list.
    b. Lid prop bushing(s).
       i. one or two in accordance with drawing.
       ii. Record lip prop bushing WO and welding rod PO on attached material list.
    c. Placard bracket. – not installed on 95912 (Bell 429)
       i. Locate on cross member to set bracket in centre bay of lid.
       ii. Record placard bracket WO and welding rod PO on attached material list.

11. Clean up DH DH DH DH N/A
    a. Grind high spots off mesh welds.
    b. Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out.
    c. Straighten lid using frame attached under welding table. Work carefully, avoid excessive force to prevent kinking rim tubes.
    d. Drill #9 through lid prop bushing(s). De-burr hole(s).
    e. Drill for lid bumpers using 1/4" (#3) centre drill.
       i. 3 places for lids under 76"
       ii. 4 places for lids over 76"
    f. Remove surface rust with scotch-brite pad.

12. Final Inspection AR AR AR AR N/A
    To be completed by a different person than the previous steps.
    a. Basket lid assembly for complete welds, and required minimum mesh weld locations.
    b. Material lists complete.
    c. Overall condition and conformity to drawing(s).

CARGO BASKET LID FABRICATION

Complete
(initial or SCA #)

13. Powder Coating
    a. Parts are to be powder coated white in accordance with commercial practices.
    b. Record powder coating PO.
    c. Inspect powder coating on receiving.
    d. Tag lid assembly and place into stock in preparation for assembly.

AD 73-04 02 | AD 73-04 02 | AD 73-04 02 | AD 73-04 02 | N/A

Work Order: 2017-83

Date Opened: June 2017

Material Tracking Sheet
Eurocopter AS350 / AS355
Extra Large Lid Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	4	94012	**94012-01**	**Lid Assembly**		
Step 1				*Rim Assembly*		
	. 2		--	3/4" Tube - Long Rim (97")	4130 Steel, ¾" x 0.035 Sqr. Tube	17004
	. 2		--	3/4" Tube - Short Rim (22.5")	4130 Steel, ¾" x 0.035 Sqr. Tube	17004
Step 2				*Weld Rim Assembly*		
	. A/R			Welding Rod	ER70S-2 TIG Rod	14033
Step 3				*Inspection - Rim*	*None*	
Step 4				*Frame Assembly*		
	. 4		--	3/4" Tube - Cross Member (21")	4130 Steel, ¾" x 0.035 Sqr. Tube	17004
Step 5		70405		*Option: Frame Assembly - with walkway*		
	. 10		--	1/2" Tube - walkway	4130 Steel, ½" x 0.035 Sqr. Tube	17038
Step 6				*Weld Frame Assembly*		
	. A/R			Welding Rod	ER70S-2 TIG Rod	14033
Step 7				*Inspection - Frame Assembly*	*None*	
Step 8				*Mesh Assembly*		
	. 1		--	Mesh (lid - 96" x 22")	3/4-16F Expanded Mild Steel sheet	17025
Step 9				*Weld Mesh*		
	. A/R			Welding Rod	ER70S-6 MIG Wire	16078

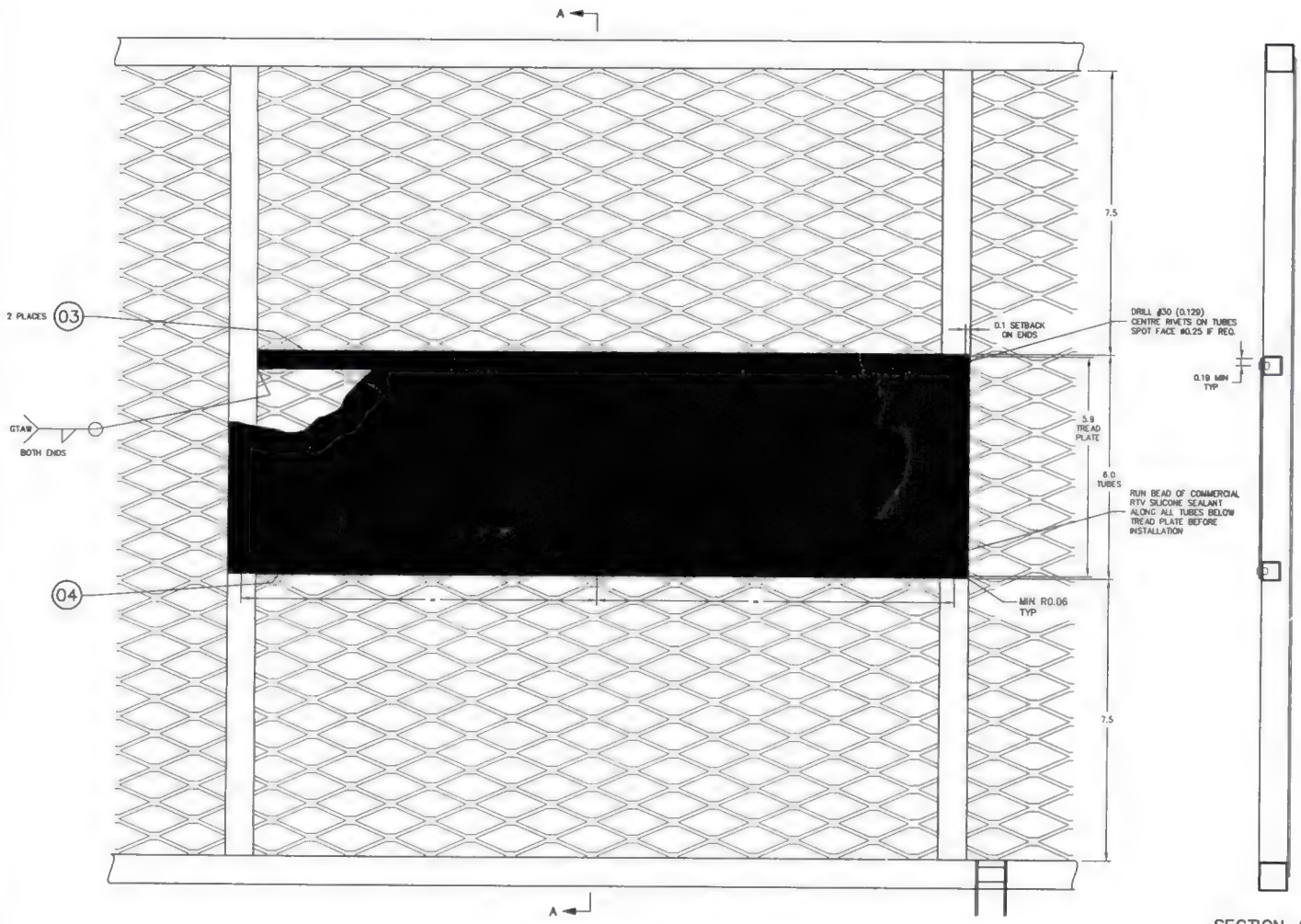
Work Order: 2017-83

Date Opened: June 2017

Material Tracking Sheet
Eurocopter AS350 / AS355
Extra Large Lid Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 10				*Weld Lid Components*		
	. 1	84262	84262-01	Upper Handle Bracket Assembly		2016-147
	. . 4		36273-01	Lid Bracket	321 Stainless, 0.050 Sheet	
	. . 2		36275-02	Support	304 Stainless, 5/16" Rod	
	. A/R			Welding Rod	ER308L TIG Rod	14028
	. 2		49216-01	Spacer (Lid prop)	304 Stainless, ½" Dia.	2015-84
	. A/R			Welding Rod	ER308L TIG Rod	14028
	. 1		36204-10	Placard Bracket	1018 Steel, 0.035" Sheet	2016-119
	. A/R			Welding Rod	ER70S-2 TIG Rod	16078
Step 11				*Clean Up*		
Step 12				*Inspection - Final Assembly*		
Step 13				Powder Coating		17065 / 17085 (3) (1)

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
1	ADD BELL MEDIUM AND EUROCOPTER AS350 BASKETS, CHANGE TUBES	BJC	MAR 19/08
2	ADD EUROCOPTER EC135, MCDONNELL DOUGLAS MD600N, BELL 206B BASKETS	BJC	DEC 4/08
3	ADD NEW AS350 AND 206L/407 MODELS	BJC	DEC 4/08
4	TITLE BLOCK UPDATED; MODEL LIST REMOVED; ADD ALT RIVET; ADD NOTE 7	BJC	28/05/2014



(01) BASKET LID ASSEMBLY

SECTION A–A

NOTES:

1. THIS DRAWING IS AN OPTIONAL CONFIGURATION ADDING A TREAD PLATE STEP TO THE LID. THIS CONFIGURATION MAY BE APPLIED TO ANY OR ALL BAYS OF THE LID. REMAINDER OF LID ASSEMBLY IS TO BE FABRICATED IN ACCORDANCE WITH THE APPLICABLE DRAWINGS.
2. TUBES (ITEM 03) MUST BE WELDED IN PLACE BEFORE MESH IS WELDED ON BOTTOM.
3. REMOVE ALL BURRS AND BREAK SHARP EDGES.
4. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2685C. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.
5. WHEN ASSEMBLY IS COMPLETE, FILL ALL VENT HOLES WITH ROSETTE WELD.
6. THOROUGHLY CLEAN AND POWDER COAT BASKET SUB-ASSEMBLIES PRIOR TO ASSEMBLY. INSTALL TREAD PLATE AFTER POWDER COATING
7. WIDTH AND POSITION OF LID STEP MAY BE ADJUSTED TO MATCH LID DOOR INSTALLED IN ACCORDANCE WITH DRAWING 70402 ON ADJOINING BAY OF THE LID

A/R	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY			LIST OF MATERIALS			
A	CR3213-4-02		BLIND RIVET	ALTERNATE: HR3213-4-02		
1	70405-04	04	TREAD PLATE	ALUMINUM	COMMERCIAL	0.063 TREAD PLATE
2	70405-03	03	TUBE	4130 STEEL COND. N	MIL-T-6736	0.5 X 0.035 WALL TUBE
1	SEE NOTE 1	02	BASKET LID ASSEMBLY			
\	70405-01	01	BASKET LID ASSEMBLY - MODIFIED WITH STEP			

BASIC CODE REF. NAS 523

DASH NO. FOR DIAMETER
N=MFD. HEAD NEAR SIDE
F=MFD. HEAD FAR SIDE

C=COUNTERSUNK
D=DIMPLE
DIGIT=# OF SHEETS TO BE DIMPLED

DASH NO. FOR LENGTH

BASIC CODES:
BJ = MS20470AD
BB = MS20426AD
ARN = CR3213
ARM = CR3212

INSTALL NEW RIVET
REMOVE/REPLACE RIVET
EXISTING RIVET

APPROVALS		DATE
DRAWN:	JEFF CLARKE	21 SEPT 2006
CHECKED:	E. BURGOIN	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES ON:

DECIMALS	ANGLES
X.XXX ±0.010	±1/2°
X.XX ±0.03	
X.X ±0.1	

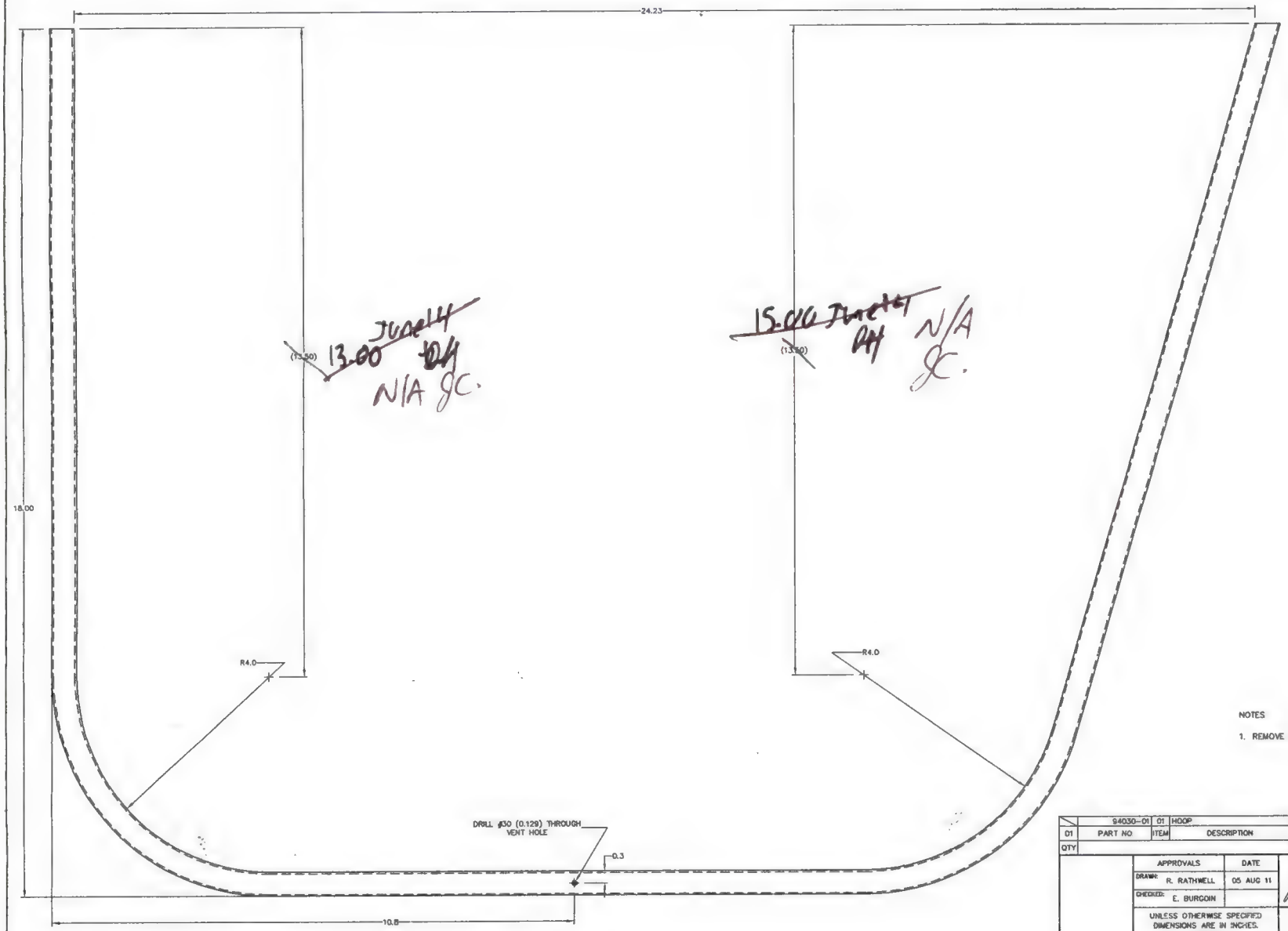
AERO DESIGN LTD.
9888A MALASPINA ROAD
POWELL RIVER, BC, CANADA, V8A 0G3
TEL: 604.485.2878 www.aerodesign.ca

CARGO BASKET
LID STEP MODIFICATION

SCALE 1 : 1.5	DWG. SIZE	DWG. NO.	REV.
SHEET 1 OF 1	A1	70405	4

3017-83 ~~X5~~ Baskets X4 JC.

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		
1	TITLE BLOCK UPDATED; DRAWING REFORMATTED TO A1	BJC	11/07/2014



(01) HOOP
SCALE 1 : 1

NOTES

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.

01	94030-01	01	HOOP	4130 STEEL COND. N	MIL-T-6736	0.5 X 0.035 SOR TUBE
	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY	LIST OF MATERIALS					

APPROVALS		DATE
DRAWN:	R. RATHWELL	05 AUG 11
CHECKED:	E. BURGOIN	

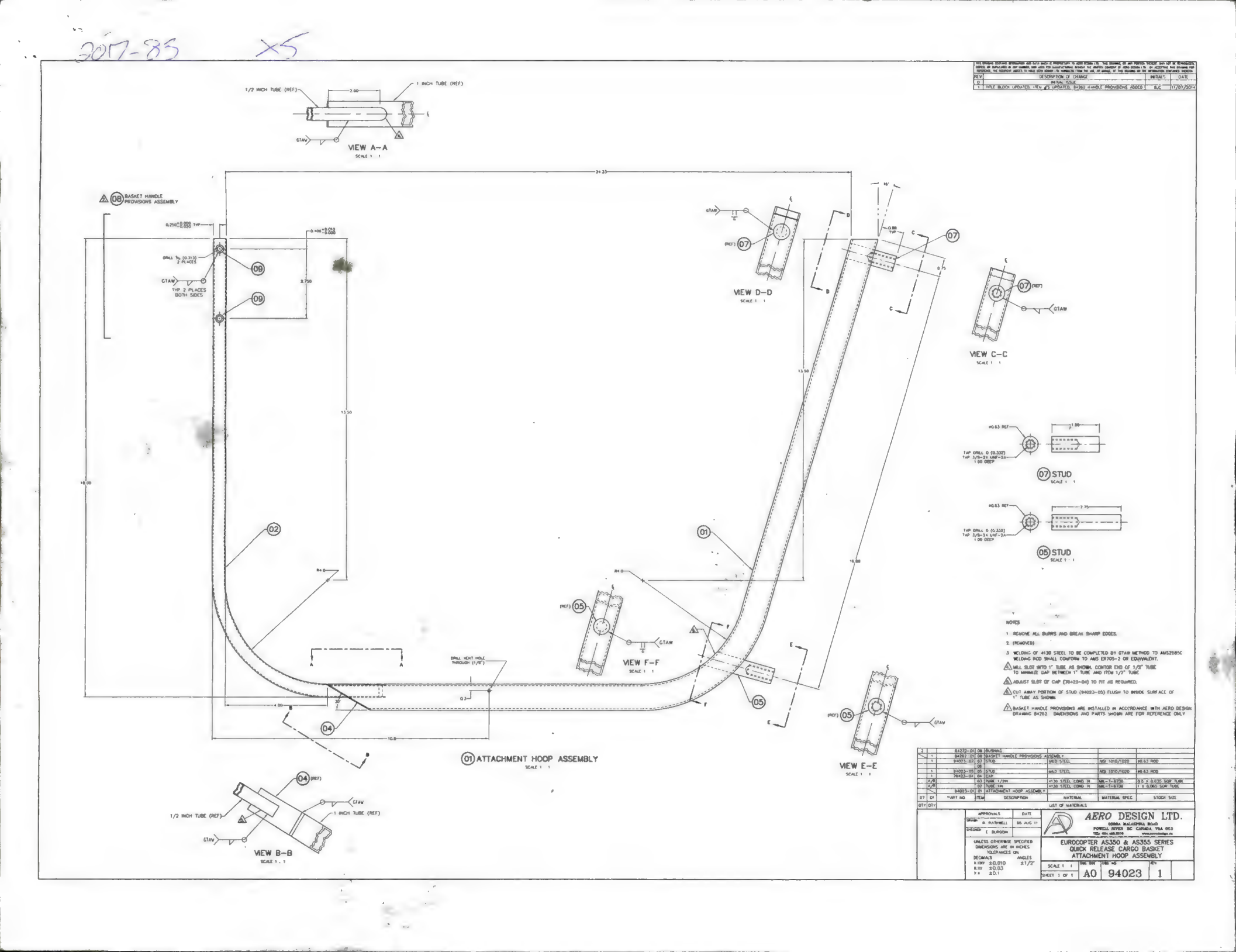
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES ON:
DECIMALS: X.XXX ±0.010; X.XX ±0.03; X.X ±0.1
ANGLES: ±1/2"

AERO DESIGN LTD.
9688A MALASPINA ROAD
POWELL RIVER, BC, CANADA, V8A 0G3
TEL: 604.485.2275
www.aerodesign.ca

EUROCOPTER AS350 & AS355 SERIES
QUICK RELEASE CARGO BASKET
HOOP

SCALE	DWG. SIZE	DWG. NO.	REV.
1 : 1	A1	94030	1
SHEET 1 OF 1			

2017-85 x5



REV	DESCRIPTION OF CHANGE	INITIALS	DATE
0	ORIGINAL ISSUE		
1	TITLE BLOCK UPDATED, VIEW ⚠5 UPDATED, 84262 HANDLE PROVISIONS ADDED	BJC	11/07/2014

NOTES:

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. (REMOVED)
3. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS2685C. WELDING ROD SHALL CONFORM TO AMS ER70S-2 OR EQUIVALENT.

⚠4 MILL SLOT INTO 1" TUBE AS SHOWN. CONTOUR END OF 1.5" TUBE TO MINIMIZE GAP BETWEEN 1" TUBE AND ITEM 1/3" TUBE.

⚠5 ADJUST SLOT OF CAP (78423-04) TO FIT AS REQUIRED.

⚠6 CUT AWAY PORTION OF STUD (94023-05) FLUSH TO INSIDE SURFACE OF 1" TUBE AS SHOWN.

⚠7 BASKET HANDLE PROVISIONS ARE INSTALLED IN ACCORDANCE WITH AERO DESIGN DRAWING 84262. DIMENSIONS AND PARTS SHOWN ARE FOR REFERENCE ONLY.

QTY	QTY	ITEM	PART NO.	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
				LIST OF MATERIALS			
3		08	84272-01	BUSHING			
1		08	84262-01	BASKET HANDLE PROVISIONS ASSEMBLY			
1		07	94023-07	STUD	MILD STEEL	WSP 1010/1020	ø0.63 ROD
		06					
1		05	94023-05	STUD	MILD STEEL	WSP 1010/1020	ø0.63 ROD
1		04	78423-04	CAP			
A/R		03		TUBE 1.75"	4130 STEEL COND. N	MIL-T-6736	0.5 x 0.035 SQR TUBE
A/R		02		TUBE 1"	4130 STEEL COND. N	MIL-T-6736	1 x 0.065 SQR TUBE
1		01	84023-01	ATTACHMENT HOOP ASSEMBLY			

APPROVALS		DATE
DRAWN	R. RATHWELL	05 AUG 11
CHECKED	E. BURDON	

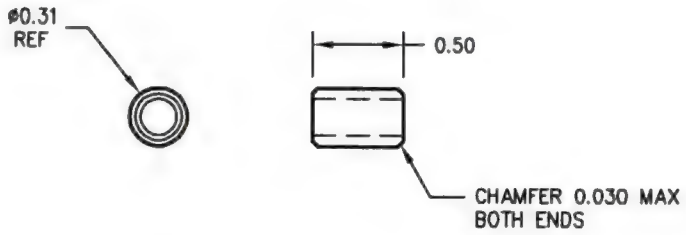
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:
DECIMALS: X.XXX ±0.010, X.XX ±0.03, X.X ±0.1. ANGLES ±1/2°

AERO DESIGN LTD.
GOBBA MACASPINA ROAD
POWELL RIVER BC CANADA V8A 0C3
TEL: 604.485.8272 www.aerodesign.ca

EUROCOPTER AS350 & AS355 SERIES
QUICK RELEASE CARGO BASKET
ATTACHMENT HOOP ASSEMBLY

SCALE	SIZE	DWG. NO.	REV.
1 : 1	A0	94023	1
SHEET 1 OF 1			

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		
1	UPDATE TITLE BLOCK, ADD ALTERNATE MATERIAL	BJC	MAR 13/14



(01) BUSHING

NOTES

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.

		01	(ALTERNATE MATERIAL)	304 STAINLESS STEEL	ASTM A269	0.313 X 0.058 RND. TUBE
	84272-01	01	BUSHING	4130 STEEL, COND. N	MIL-T-6736	0.313 X 0.058 RND. TUBE
	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY	LIST OF MATERIALS					

APPROVALS	DATE
DRAWN: JEFF CLARKE	03 NOV 2009
CHECKED: E. BURGOIN	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES ON:

DECIMALS		ANGLES
X.XXX	±0.010	±1/2°
X.XX	±0.03	
X.X	±0.1	

AERO DESIGN LTD.
9888A MALASPINA ROAD
POWELL RIVER, BC, CANADA, V8A 0G3
TEL: 604.483.2376 www.aerodesign.ca

HELICOPTER CARGO BASKET
BUSHING

SCALE 1 : 1	DWG. SIZE	DWG. NO.	REV.	
SHEET 1 OF 1	A4	84272	1	

CARGO BASKET HOOP FABRICATION - 94023

General

These instructions apply to cargo basket attachment hoop 94023-01. Refer to the following drawings, at the current revision, for dimensions and details:

94023, Revision 0 – Attachment Hoop
84262, Revision 1 – Handle Bracket Assembly

Work Order: 2017-83 x6 dk

Complete (initial or SCA #)

Date Open: 08 May 2017

1. ½ Hoop Fabrication – ½" hoop — DA DA DH DH GH x6 dk
    a. Cut ½" x 0.035 material to 23.0", square ends.
    b. Record material PO on attached material list.
    c. De-burr cut ends using a sanding disc on a die-grinder or disc sander.
    d. Remove writing on tubes with acetone and scotch bright.
    e. On the hoop bending fixture, set the following stops:
        i. Upper tube stop: ??" 15 1/4
        ii. Lower bend stop: ~~12~~mm 13"
    f. Slide stock tube through bending die up to upper stop. Rotate bending arm clockwise until tube is secure, ready to bend. Ensure tube remains tight to upper stop.
    g. Slide shim all the way forward on bender to secure tube in die
    h. Pull bending arm clockwise until stop is reached. Pull slowly with consistent pressure.
    i. Check tube bend for square using a hoop jig or carpenters square. Adjust stops if required.
    j. Check for:
        i. hoop height: 18" (Outside to outside)
        ii. adjust upper stop for height if required

2. ½ Hoop Machining – ½" hoop – Handle Provisions 84262-01 — JC x6
    a. Start with ½" half hoop from step 1.
    b. Setup manual milling machine with specific hoop vise jaw. Set XY 0 on far, right edge of jaw (end of hoop).
    c. Drill 2 places, 5/16" (0.313) holes using 5/16" (#4) centre drill through both sides in accordance with drawing. Run at 500 RPM. Apply a few drops of Rapid-Tap cutting oil to each location before drilling.
        i. locate 0.23" from edge (within tolerance specified on drawing).
    d. Wipe or blow off cutting oil and de-burr with scotch-brite disc on die-grinder.
    e. Tag in process hoop(s) and place into stock.

CARGO BASKET HOOP FABRICATION - 94023

Complete
(initial or SCA #)

3. ½ Hoop Fabrication – 1" hoop 33.5 DM DM DM DM DM x6
   a. Cut 1" x 0.065 material to ~~33.25"~~, on end 60 degrees, one end @ 16 degrees. ~~33.25~~" distance is long ~~short~~ edge of 16 deg to long edge of 60 deg. 33.5
   b. Record material PO on attached material list.
   c. De-burr cut ends using a sanding disc on a die-grinder or disc sander.
   d. Remove writing on tubes with acetone and scotch bright.
   e. Mark tube at ~~15 11/16~~" from long edge of 16 degree end. 13 7/8" 14 1/8"
   f. Set lower stop to 101 degrees
   g. Slide stock tube through bending die up to mark. Rotate bending arm clockwise until tube is secure, ready to bend. Ensure tube remains at mark.
   h. Slide shim all the way forward on bender to secure tube in die
   i. Using a long snipe tube, pull bending arm clockwise until stop is reached. Pull slowly with consistent pressure.
   j. Check tube bend for angle using hoop jig. Adjust stops if required.
   k. Check for:
      i. hoop height from jig
      ii. adjust mark for height if required
      iii. bottom length
   l. De-burr cut end using a sanding disc on a die-grinder or disc sander.

4. ½ Hoop Machining – 1" hoop DM DM DM DM DM JC x6
   a. Start with 1" ½ hoop as stock.
   b. Setup manual milling machine with standard steel vise jaws. Insert hoop into vise flat on bottom of vise, 16 degree side on right. Set XY 0 on far, right edge of hoop (end of hoop). Shift X along hoop 0.75" and set X 0. Shift Y -0.5". Set stop against end of tube.
   c. Drill two places, 5/8" (0.625) holes using 5/8" (#7) centre drill through both sides in accordance with drawing. Apply a few drops of Rapid-Tap cutting oil to each location before drilling.
   d. Wipe or blow off cutting oil and de-burr with scotch-brite disc on die-grinder.
   e. Set tube in vise with 60 degree end on right.
   f. Using ½" coated carbide end mill, mill slot 2.25" deep (edge to edge, 2.0 edge to centre). Apply a bead of Rapid-Tap cutting oil along cut line before milling.
   g. Wipe or blow off cutting oil and de-burr with scotch-brite disc on die-grinder.
   h. Tag in process hoop(s) and place into stock.

5. Joint Preparation AR AR AR AR AR AR
   a. Set 1" hoop in hoop jig. Insert ½" hoop into 1" hoop, against side stop of jig. Mark slot location in 1" hoop onto ½" hoop. Trim ½" hoop with vertical bandsaw if required, and shape to match slot with disc sander.
   b. Insert one 94023-07 lug (flat end) at top and 94023-05 lug (angled end) at bottom into holes in 1" hoop. Seat top lug flush with inboard face of tube using a C-clamp or vise. Attach 16 7/8" spacing jig with 3/8-24 bolts to lugs and space jig 7/8" out from hoop. Mark 94023-07 lug and trim or grind to fit.

AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05 | AD 73-04 05

6. We[illegible] - Lugs

Complete
(initial or SCA #)

a. Insert one 94023-07 lug (flat end) at top and 94023-05 lug (angled end) at bottom into holes in 1" hoop. Seat flush with inboard face of tube using a C-clamp or vise. Attach 16 7/8" spacing jig with 3/8-24 bolts to lugs and space jig 7/8" out from hoop.
b. TIG weld all around both sides of lugs. 2 places. Grind angled lug into radius of hoop before welding.
c. Record lug and welding rod PO/WO on attached material list. AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05

7. Welding – Handle Bushings – 84262-01
   a. Insert 84271-01 bushings into ½" hoop prepared in step 2. above.
   b. TIG weld bushing both sides, 2 bushings per hoop.
   c. Record bushing and welding rod PO/WO on attached material list. AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05

8. Welding – Hoop Assembly
   a. Insert 1" hoop from step 6 and ½" hoop from step 7 into hoop jig. Seat ½" hoop into slot in 1" hoop.
   b. Tack weld hoops together, minimum 4 places, to hold hoop together to complete welds out of jig.
   c. TIG weld around ½" hoop in slot.
   d. Cap ½" – 1" tube joint with 76423-04 cap. TIG weld around cap.
   e. Record cap and welding rod PO/WO on attached material list.

9. Finishing and Inspection
   a. Run 3/8-24 tap through welded lugs.
   b. Grind inside surfaces flush at lugs and slot in 1" tube.
   c. Inspect hoop for conformity to drawing.
   d. Tag complete and inspected hoop(s) and place into stock.

Work Order: 2017-83

Date Opened: June 2017

Material Tracking Sheet
Eurocopter AS350 / AS355
Extra Large Hoops Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	16		**94030-01**	**Hoop - standard**	4130 Steel, ½" x 0.035 Sqr. Tube	17038
	8		**94023-01**	**Hoop - attachment**		
Step 1				*1/2 Hoop Fabrication - 1/2" hoop*		
	. 1		--	1/2" Tube - hoop	4130 Steel, ½" x 0.035 Sqr. Tube	17038
Step 2				*Machining*	*None*	
Step 3				*1/2 Hoop Fabrication - 1" hoop*		
	. 1		--	1" tube - hoop	4130 Steel, 1" x 0.065 Sqr. Tube	17038
Step 4				*Machining*	*None*	
Step 5				*Joint Preparation*	*None*	
				Welding		
Step 6	. 1		94023-05	Stud	1018 Mild Steel, 5/8" Dia.	2015-108
	. 1		94023-07	Stud	1018 Mild Steel, 5/8" Dia.	2015-108
Step 7	. 2	84262	84272-01	Bushing	4130 Steel, 5/16" x 0.058 Rnd. Tube	~~150-15~~ 2016-134
Step 8	. 1		76423-04	Cap	1018 Mild Steel, 0.050" Sheet	2019
	. A/R		--	Welding Rod	ER70S-2	16078
Step 9				*Finishing and Inspection*	*None*	

Aero Design Ltd.
AMF 73-04
9888 A Malaspina Rd.
Powell River, BC
Canada
V8A 0G3

Complete Fabrication Instructions

This sheet is designed to assist in the fabrication of Aero Design products in accordance with the company Manufacturing Policy Manual, the Canadian Aviation Regulations and other applicable technical documentation.	The reference column of the following table is for reference unless a specific instruction is called out. The initial columns serve one column per component fabricated on the applicable work order.

Nomentclature: AS350 Quick Release Ski Basket Hoop Work Order #: 2017-83
Number of Units: 5

Model	Requirements	Reference	Initial				
AS350	Review LOEP to ensure most current technical specifications	N/A	DK	DK	DK	DK	DK
AS350	Cut a piece of material to 53 1/8"	N/A					DK
AS350	Cut one end at 90 degrees and the opposite end at 16 degrees.	N/A					DK
AS350	At the 90 degree end measure 20 5/16 and mark, then 32 1/8 and mark.	N/A	DK	DK	DK	DK	DK
AS350	Set tube at 20 5/16 mark, bend at that mark, set stop at 105 deg.		DK	DK	DK	DK	DK
AS350	Flip tube, set at next mark, bend at that mark, set stop at 86 deg.	N/A	DK	DK	DK	DK	DK

Post Fabrication Inspection

Inspect components to ensure conformity to the applicable design data.

Signature: Hasa Ryhn
Licence Number or SCA: AD 01
Date: 20 Jun 17

Aero Design Ltd.
AMF 73-04
9888 A Malaspina Rd.
Powell River, BC
Canada
V8A 0G3

Complete Fabrication Instructions

This sheet is designed to assist in the fabrication of Aero Design products in accordance with the company Manufacturing Policy Manual, the Canadian Aviation Regulations and other applicable technical documentation.	The reference column of the following table is for reference unless a specific instruction is called out. The initial columns serve one column per component fabricated on the applicable work order.

Nomentclature: AS350 Quick Release Ski Basket Hoop Work Order #: 2017-83
Number of Units: 5

Model	Requirements	Reference	Initial				
AS350	Review LOEP to ensure most current technical specifications	N/A					
AS350	Cut a piece of material to 53 1/8"	N/A					
AS350	Cut one end at 90 degrees and the opposite end at 16 degrees.	N/A					
AS350	At the 90 degree end measure 20 5/16 and mark, then 32 1/8 and mark.	N/A					
AS350	Set tube at 20 5/16 mark, bend at that mark, set stop at 105 deg.						
AS350	Flip tube, set at next mark, bend at that mark, set stop at 86 deg.	N/A					

Post Fabrication Inspection
Inspect components to ensure conformity to the applicable design data.

Signature: Jason Kehn
Licence Number or SCA: AME 01
Date: 20 Jun 17

Aero Design Ltd.
AMF 73-04
9888 A Malaspina Rd.
Powell River, BC
Canada
V8A 0G3

Complete Fabrication Instructions

This sheet is designed to assist in the fabrication of Aero Design products in accordance with the company Manufacturing Policy Manual, the Canadian Aviation Regulations and other applicable technical documentation.	The reference column of the following table is for reference unless a specific instruction is called out. The initial columns serve one column per component fabricated on the applicable work order.

Nomentclature: AS350 Quick Release Ski Basket Hoop Work Order #: 2017-83
Number of Units: 5

Model	Requirements	Reference	Initial				
AS350	Review LOEP to ensure most current technical specifications	N/A					
AS350	Cut a piece of material to 53 1/8"	N/A					
AS350	Cut one end at 90 degrees and the opposite end at 16 degrees.	N/A					
AS350	At the 90 degree end measure 20 5/16 and mark, then 32 1/8 and mark.	N/A					
AS350	Set tube at 20 5/16 mark, bend at that mark, set stop at 105 deg.						
AS350	Flip tube, set at next mark, bend at that mark, set stop at 86 deg.	N/A					

Post Fabrication Inspection
Inspect components to ensure conformity to the applicable design data.

Signature: [signature]
Licence Number or SCA: AS 01
Date: 20 Jun 17

Aero Design Ltd.
AMF 73-04
9888 A Malaspina Rd.
Powell River, BC
Canada
V8A 0G3

Complete Fabrication Instructions

This sheet is designed to assist in the fabrication of Aero Design products in accordance with the company Manufacturing Policy Manual, the Canadian Aviation Regulations and other applicable technical documentation.	The reference column of the following table is for reference unless a specific instruction is called out. The initial columns serve one column per component fabricated on the applicable work order.

Nomentclature: AS350 Quick Release Ski Basket Hoop Work Order #: 2017-83
Number of Units: 5

Model	Requirements	Reference	Initial				
AS350	Review LOEP to ensure most current technical specifications	N/A					
AS350	Cut a piece of material to 53 1/8"	N/A	DH	DH	DH	DH	DH OK
AS350	Cut one end at 90 degrees and the opposite end at 16 degrees.	N/A	DH	DH	DH	DH	DH OK
AS350	At the 90 degree end measure 20 5/16 and mark, then 32 1/8 and mark.	N/A	DH	DH	DH	DH	DH
AS350	Set tube at 20 5/16 mark, bend at that mark, set stop at 105 deg.		OK	OK	OK	OK	OK
AS350	Flip tube, set at next mark, bend at that mark, set stop at 86 deg.	N/A	OK	OK	OK	OK	OK

Post Fabrication Inspection

Inspect components to ensure conformity to the applicable design data.

Signature: Aaron Kehn
Licence Number or SCA: AD 01
Date: 30 Jun 17